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REMARKS

1. Status of the Claims

Claims 5-59 are pending in the present application. Claims 5-11, 16-27, 31-33, and 35-59 are withdrawn from consideration herein as being drawn to a non-elected invention. Claims 12-15, 28-30, and 34 are under examination.

Support for the amendments to claims 13, 14, and 15 can be found in the specification, for example, at page 114, lines 3-9 and page 12, lines 15-18. Note, the specification at page 114, lines 3-9, incorrectly lists the sequence identifiers for sequences of H1, H2, and H3 as SEQ ID NOs: 13, 14, and 15; respectively. The correct designations for H1, H2, and H3 are SEQ ID NOs: 14, 15, and 16; respectively, as disclosed, for example, at page 12, lines 15-18 of the specification. Accordingly, the present Response includes an amendment to the specification to correct the sequence identifiers at page 114, lines 3-9. No new matter is added by way of the present Response and Amendment.

Applicant respectfully requests that the Examiner reconsider and reexamine the present application in view of the amendments above and the remarks below.

2. Information Disclosure Statement

The Examiner asserts in the Office Action mailed May 12, 2005 (hereinafter the "Office Action") that the Information Disclosure Statement mailed September 28, 2004 (hereinafter the "IDS") was missing PTO Form 1449. Applicant respectfully submits that PTO Form 1449 was filed with the IDS and is providing a copy of PTO Form 1449 for the review of the Examiner and the records

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of the USPTO. In view of the copy of PTO Form 1449 submitted herewith, Applicant believes that the present objection is moot.

3. Claim Objections

The Examiner requested in the Office Action that a colon (":") be inserted into claims 12-15 which recite sequence identifiers such that the sequence identifiers read "SEQ ID NO:". In view of the amendments to the claims above, Applicant believes that the present objection is moot.

4. Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 12-15, 28-30, and 34 under 35 U.S.C. § 112, second paragraph allegedly as being indefinite because it allegedly is unclear how polynucleotide sequences SEQ ID NOs: 14, 15, and 16 in claims 13, 14, and 15, respectively, correspond to the amino acid sequences in claim 12. The present rejection is respectfully traversed because one skilled in the art is able to determine which polynucleotide sequences correspond to which amino acid sequence due to the known correspondence between nucleotide codons and amino acid residues. The present rejection is also traversed because of the disclosure of the correspondence between the recited polynucleotide and amino acid sequences in the specification, for example, at page 12, lines 15-18. However, in view of the amendments to claims 13, 14, and 15; the present rejection is believed to be moot.

Next, the Examiner asserts that the claim language of claims 13-15 consists of polynucleotides that are 571 nucleotides in length and; therefore, allegedly "can only encode amino acids of 157 amino acids". Applicant respectfully traverses the present rejection for the following reasons.

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Applicant respectfully submits that a polynucleotide consisting of 571 nucleotides can encode an amino acid sequence of 190 amino acids or fewer amino acids (190 is the integer value of 571 divided by 3). One skilled in the art will recognize that fewer than 190 amino acids can be encoded by a polynucleotide consisting of 571 nucleotides because there is no requirement that all nucleotide triplets encode an amino acid residue. In fact, the amino acid sequences SEQ ID NOs: 28, 29, and 30 encoded by SEQ ID NOs: 14, 15, and 16, respectively, are 189 amino acid residues in length. The first two and the last two nucleotides of each polynucleotide are non-coding. The non-coding nucleotides would be apparent to one of ordinary skill in the art because the polynucleotide and amino acid sequences are provided in the sequence listing and because of the correspondence between polynucleotide codons and amino acid residues. Applicant respectfully requests that the Examiner withdraw the present rejection in view of the remarks above.

5. Rejections Under Non-Statutory Double Patenting

Claims 12-15, 28-30, and 34 are rejected in the Office Action under the judicially created doctrine of obviousness-type double patenting allegedly as being unpatentable over claim 7 of U.S. Patent No. 6,057,094. In view of the Terminal Disclaimer filed herewith, Applicant respectfully requests that the present rejection be withdrawn.

No new matter is added by way of the present Response and Amendment.

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If there are any additional fees (or overpayments) associated with this Response, or any Response associated with this application, the Director is hereby authorized to charge (or credit) our Deposit Account No. 19-0962.

Respectfully submitted,

Nov. 14, 2005  
Date

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